

ABSTRACT OF THE DISCLOSURE

A fuel metering unit for controlling a variable displacement pump including a main metering valve in fluid communication with the pump for metering an output of the pump, a pressure regulator in fluid communication with the metering valve to create a spill return and a control valve in fluid communication with the pressure regulator and the pump for regulating the spill return flow so the spill return flow is maintained substantially constant at a low level to minimize the heat generated by recirculation by setting a displacement of the pump.